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(54) Title: ARABIDOPSIS THALIANA DERIVED FRIGIDA GENE CONFERRING LATE FLOWERING

1 MSNYPPTVAA QPTTTANPLL QRHQSEQRRR ELPKIVETES TSMDITIGQS

51 KQPQFLKSID ELAAFSVAVE TFKRQFDDLQ KHIESIENAI DSKLESNGVV

101 LAARNINFHQ PMLSPPRNNV SVETTVTVSQ PSQEIVPETS NKPEGGRMCE

151 LMCSKGLRKY IYANISDQAK LMEEIPSALK LAKEPAKFVL DCIGKFYLQG

201 RRAFTKESPM SSARQVSLLI LESFLLMPDR GKGKVKIESW IKDEAETAAV

251 AWRKRIMTEG GLAAAEKMDA RGLLLLVACF GVPSNFRSTD LLDLIRMSGS
301 NEIAGALKRS OFLVPMVSGI VESSIKRGMH IEALEMVYTF GMEDKFSAAL

351 VLTSPLKMSK ESFERAKRKA QSPLAFKEAA TKQLAVLSSV MQCMETHKLD

401 PAKELPGWQI KEQIVSLEKD TLQLDKEMEE KARSLSIMEE AALAKRMYNQ

451 QIKRPRLSPM EMPPVTSSSY SPIYRDRSFP SQRDDDQDEI SALVSSYLGP

501 STSFPHRSRR SPEYMVPLPH GGLGRSVYAY EHLAPNSYSP GHGHRLHRQY

551 SPSLVHGQRH PLQYSPPIHG QQQLPYGIQR VYRHSPSEER YLGLSNQRSP

601 RSNSSLDPK

(57) Abstract: Disclosed are isolated nucleic acids obtainable from the FRI locus of plants which encode polypeptides capable of specifically altering, particularly delaying, the flowering time of a plant into which the nucleic acid is introduced. One preferred embodiment is the FRI nucleotide sequence which encodes the polypeptide of Fig 6 (see the sequence of Fig 5, particularly bases 362-2188 thereof) or sequences degeneratively equivalent to these. Also provided are variant sequences (e.g. alleles, orthologues, derivatives) and complementary sequences, plus vectors, host cells, plants and associated processes of production and methods of use e.g. for influencing or affecting flowering time in a plant by expression or suppression of FRI or variant sequences.

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